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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,904	05/18/2006	Hajime Igarashi	21668/0211419-US0	8765
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EXAMINER MOYER, DALE S				
ART UNIT 3664		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/595,904

Applicant(s)

IGARASHI ET AL.

Examiner

Dale Moyer

Art Unit

3664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2009.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
4a) Of the above claim(s) 3-24 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 2, 25 and 26 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 29 September 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB06)
Paper No(s)/Mail Date 03/31/2009 and 05/07/2009
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
5) ☐ ~~Notes of Informal Patent Application~~
6) ☐ Other: _____

DETAILED ACTION

This final office action is in response to the applicants' amendments, hereinafter "the amendment", received by the United States Patent and Trademark Office, hereinafter "the Office", on 19 August 2009 and 29 September 2009.

Claims 1-26 are pending, of which, claims 3-24 are cancelled, claims 1 and 2 are currently amended, and claims 25 and 26 are new. Thus, claims 1-2 and 25-26 are addressed below.

Response to Arguments

1. In response to the amendments and/or arguments made by the applicants', the objection to the specification has been withdrawn. The substitute specification has been entered.
2. In response to the amendments and/or arguments made by the applicants', the objection to the drawings has been withdrawn. The replacement drawing sheets have been accepted and entered.
3. In response to the amendments and/or arguments made by the applicants', the objection to the abstract has been withdrawn.
4. In response to the amendments and/or arguments the rejections under 35 U.S.C. § 112.
5. Applicant's arguments with respect to claims 1-2 and 25-26 have been considered but are moot in view of the new ground(s) of rejection. However the examiner has provided hereinbelow a series of notes regarding the applicants' arguments in order to further clarify the rejections.

First, on page 15 of the amendment, the applicants' argue that the disclosure of Hagenbach is limited to an apparatus to monitor anomalies. Further the applicants argue that "[i]n contrast, the object of the [applicants'] invention is to provide a type of fuel-efficiency monitors..." The examiner notes that Hagenbach also teaches monitoring engine fuel consumption relative to work done by the vehicle (i.e. fuel efficiency). See Hagenbach column 10, lines 25-29.

Second, on page 16 of the amendment, the applicants' argue that the disclosure of Hagenbach does not teach the limitation wherein "the information processing device detects an accelerator angle as information on the running state of the vehicle, and generates the warning on the vehicle speed when the accelerator angle exceeds a previously set value." The examiner notes that the word "when" in the limitation "when the accelerator angle exceeds a previously set value" does not distinguish the claim since Hagenbach generates a failure [applicants' warning] regardless of the throttle position [applicants' accelerator angle]. That is, the system generates a failure when the throttle is at any position.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 25 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 25, the claim is incomprehensible and, as such, the metes and bounds of the claim are indeterminate. First, the claim does not provide the structure for accomplishing the claimed functions. That is, it is unclear what single structure is capable of detecting vehicle speed, engine speed, and fuel flow rate; only a single device is claimed for sensing all three parameters. Second, the relationship between the required warning condition and required warning value is unclear. Third, it is unclear how a required warning condition, based on vehicle speed and accelerator angle, can indicate when the engine speed exceeds a required warning value. Fourth, there are multiple elements lacking antecedent basis; see "the overtime event."

The applicants are reminded that while the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

In regards to claim 26, the words "the required value" lack antecedent support in the claim.

the words "overtime event" lack antecedent basis in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 2 and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hagenbach (United States Patent No. 5,754,965).

In regards to claim 2, Hagenbach teaches a fuel-saving management system comprising, on a motor vehicle: an information detection device (Fig. 2A, element 67) detecting information on a running state of the vehicle; an information-processing device (Fig. 2A, elements 41 and/or 43) processing the information detected by the information detection device, the information-processing device also generating a warning when the processed information satisfies required warning conditions; an information storage device (Fig. 2A, elements 43 and/or 47; Fig. 2B, elements 83, 85, 87, and/or 89; Fig. 4, element 97) storing the processed information; wherein when a time during which the processed information is maintained to satisfy the required warning conditions or an elapsed time of the processed information exceeds a previously set time, the information processing device stores the occurrence of the overtime event into the information storage device; wherein the processed information includes processed general road information and processed highway/expressway information; wherein the processed highway/expressway information includes either a vehicle speed (Fig. 2A, element 67E), an accelerator angle change (Fig. 2A, element 67A), a vehicle speed change, a top-gear non-operation elapsed time, or an auxiliary brake usage ratio, or a combination of any two thereof; and wherein the information-processing device detects an accelerator angle (Fig. 2A, element 67B) as information on the running state of the vehicle, and generates the warning on the vehicle speed when the accelerator angle exceeds a previously set value (column 6, lines 1-50; column 7, lines 15-43; column 9, lines 66 through column 10 line 26; column 11, lines 43-67; column 12, lines 7-12).

In regards to claims 25 and 26, Hagenbach discloses a fuel-saving management system comprising, on a motor vehicle: an information detection device (Fig. 2A, element 67) detecting a vehicle speed and an accelerator angle; an information-processing device processing the information detected by the information detection device, the information processing device also generating a warning when the vehicle speed and the accelerator angle satisfy required warning conditions;

an information storage device for storing count values; wherein required warning conditions indicate all of: when the vehicle speed exceeds a required warning value; when the accelerator angle exceeds a previously set value; wherein the information processing device counts the occurrence of the overtime event and stores count value into the information storage device when a time during which the processed information is maintained to satisfy the required warning conditions exceeds a previously set time (column 6, lines 1-50; column 7, lines 15-43; column 9, lines 66 through column 10 line 26; column 11, lines 43-67; column 12, lines 7-12; column 19, lines 39-46).

The examiner notes that the warning condition ("failure") is independent of the accelerator angle ("throttle position") and independent of the vehicle speed. As such, the accelerator angle is indicated at any value and the vehicle speed is indicated at any value.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagenbach (United States Patent No. 5,754,965) in view of Mieczkowski et al. (United States Patent No. 5,763,764).

In regards to claim 1, Hagenbach teaches a fuel-saving management system comprising, on a motor vehicle: an information detection device detecting information on a running state of the vehicle (Fig. 2A, element 67); an information-processing device (Fig. 2A, elements 41 and/or 43) processing the information detected by the information detection device, the information-processing device also generating a warning when the processed information satisfies required warning conditions; an information storage device (Fig. 2A, elements 43 and/or 47; Fig. 2B, elements 83, 85, 87, and/or 89; Fig. 4, element 97) storing the processed information; wherein, when a time during which the processed information is maintained to satisfy the required warning conditions or an elapsed time of the processed information exceeds a previously set time, the information-processing device stores the occurrence of the overtime event into the information storage device; wherein the processed information includes processed general-road information and processed highway/expressway information; wherein the processed general road information includes either a vehicle speed (Fig. 2A, element 67E), an engine speed (Fig. 2A, element 67A), an accelerator angle (Fig. 2A, element 67B), or an elapsed idling time, or a combination of any two thereof, and wherein the information processing device detects a fuel flow rate (Fig. 2A, elements 67C and/or 73E) as information on the running state of the vehicle, and generates the warning on

the engine speed when the fuel flow rate exceeds a previously set value (column 6, lines 1-50; column 7, lines 15-43; column 9, lines 66 through column 10 line 26; column 11, lines 43-67; column 12, lines 7-12).

The examiner notes that Hagenbach does not explicitly teach detecting a fuel flow rate. However, Hagenbach teaches detecting a fuel pressure (Fig. 2A, element 73E) detecting engine throttle position (Fig. 2A, element 67B), and detecting engine fuel consumption (Fig. 2A, element 67C). Further, Hagenbach teaches detecting a failure mode of the vehicle in response to the fuel pressure value exceeding a threshold value (claim 2).

The examiner further notes that employment of a pressure sensor to determine a fuel flow rate was well known in the art at the time of invention as evidenced by Mieczkowski et al. (column 10, line 33-42).

Therefore it would have been obvious to a person of ordinary skill in the art at the time of invention to generate a signal indicative of fuel flow rate using the engine fuel pressure sensor taught by Hagenbach as well known in the art as evidenced by Mieczkowski et al. That is, it would have been obvious because, employment of a pressure sensor to determine a fuel flow rate was a well known method for determining fuel flow rate at the time of invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dale Moyer whose telephone number is (571)270-7821.

The examiner can normally be reached on Monday through Thursday from 10AM to 4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi H. Tran can be reached on (571) 272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dale Moyer/
Examiner, Art Unit 3664
/KHOI TRAN/
Supervisor Patent Examiner, Art Unit 3664